

Applicants: Rles et al.
 Serial No. 10/632,058
 Page 2

IN THE SPECIFICATION:

Please replace paragraph 37 with the following:

FIG. 1 is a perspective view of an exemplary implantable medical device capable of incorporating a connector assembly according to the present invention. As illustrated in FIG. 1, an exemplary implantable medical device (IMD) 1 incorporating a connector assembly according to the present invention includes a hermetically sealed, biologically inert housing 5, or "can", that houses IMD circuitry, one or more leads 2A, 2B that can be implanted in a patient, and a connector block 7 that receives proximal ends 9A, 9B of leads 2 to couple leads 2 to the circuitry in housing 5 as leads 2 are inserted within a connector port 3 formed in connector block 7. Once fully inserted within connector block 7, leads 2 are further fixedly positioned within connector block 7 by tightening positioning screws 111 against leads 2.

Please replace paragraph 44 with the following:

FIG. 3 is a plan view of a connector clip utilized in a connector assembly of the present invention. As illustrated in FIG. 3, connector clip 12 is may be used to provide a means of retaining a lead (not shown) in place, or both functions together as a means of conducting electricity between contact areas 8 of a terminal pin of the lead and an electrical apparatus such as a pacemaker. Connector clip 12 is preferably prepared from a resilient, high strength, corrosion resistant, biocompatible material, such as tempered stainless steel. However, other materials suitable for such applications may be utilized in forming connector clip 12 employed in the present invention. Connector clip 12 may be stamped or cut from a sheet metal strip or cut and formed from wire stock. Connector clip 12 resembles a wire in form, and may be prepared with a number of differing cross-sections, such as circular or oval, for example, where a cross-section is created by a plane cutting perpendicular to the long axis of the wire. In

Applicants: Ries et al.
Serial No. 10/632,058
Page 3

an embodiment of the present invention, as illustrated in FIG. 3, connector clip 12 has an overall U-shape with an inner surface 44. However, it is noted that the connector clip could be configured in a variety of shapes including but not limited to square or diamond shape. Connector clip 12 generally includes a first spring arm 11 and a second spring arm 18, each including spring shoulders 20, and a spring back 22 extending between shoulders 20 of first arm 11 and second arm 18. Spring arms 11 and 18 are preferably bent or project inwards slightly, so that the distance between the ends of spring arms 11 and 18 is less than the distance between spring shoulders 20 when connector clip 12 is in a non-deflected state, as illustrated in FIG. 3.

Please replace paragraph 49 with the following:

Additionally, as illustrated in FIGS. 4A and 4B, female member 14 includes a bracing ridge 28 positioned along a lower half of female member 14 between main surface 26 and circular aperture 19. Bracing ridge 28 extends adjacent to an outer edge of central aperture 19 and an inner edge of main surface 26 to form a lower portion of aperture 19. In various embodiments of the present invention, bracing ridge 28 measures approximately 0.05-0.25 inches linearly from a first end 15 to a second end 17. In one embodiment of the present invention, bracing ridge 28 has a relatively flat arch shape, with a rectangular cross-section, and may be approximately 0.005-0.020 inches thick from a top portion 25 to a bottom portion 27 in a preferred embodiment as depicted in FIGS. 4A and 4B. Top portion 25 of bracing ridge 28 extends outward from main surface 26 to deflect spring arms 11 and 18 so that they remain in a partially loaded or deflected position when connector clip 12 is positioned within female member 14. Thus, when this embodiment of female member 14 is used to hold connector clip 12 with the dimensions described above, bracing ridge 28 deflects spring arms 11 and 18 from a resting separation of approximately 0.005 to 0.020 inches when in the non-deflected position, for an overall deflection of approximately 0.006-0.021 inches. It is noted that the

Applicants: Ries et al.
Serial No. 10/632,058
Page 4

dimensions identified in this embodiment may be increased or decreased depending upon the desired design of the connector in view of the size of the terminal pin of the lead. Furthermore, it is noted that in another embodiment of the present invention, illustrated in FIG. 4C, bracing ridge 28 may alternatively include two bracing pegs 29 extending outward from main surface 26 for separating spring arms 11 and 18 and placing connector clip 12 in a partially loaded or deflected position.

Please replace paragraph 50 with the following:

Depicted in FIGS. 4A and 4B, opposite from bracing ridge 28 and within female member 14, is a support ridge 30. As with bracing ridge 28, support ridge 30 may be a relatively flat arch that runs along the inner edge of main surface 26 and adjacent to the outer edge of circular aperture 19. In certain embodiments of the present invention, support ridge 30 extends outward from main surface 26 to approximately the same height as bracing ridge 28, but has a length of approximately one half of that of bracing ridge 28, so that the linear measurement from a first end 35 to a second end 37 of ridge 30 is approximately 0.01-0.15 inches. Alternatively, as depicted in FIG. 4C, support ridge 30 may include support pegs 31 extending outward from main surface 26, similar to bracing ridge 28, as described above. Support ridge 30 serves to anchor connector clip 12 in place by resting within the interior of spring back 22. Preferably, a cut out portion 39 formed by a side wall 41 between support ridge 30 and an outer edge 43 of main surface 26 is just enough to accommodate the width of connector clip 12.